

Work Order ID 93754

November-27-12 11:05:15 AM

93754

Page 1

Item ID: D4093-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Bracket

Start Date: 11/22/12 Start Qty: 6.00

6

Cust Item ID:

Required Date: 12/07/12 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan: ML5

Date: 12-11-27 Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
----------	--------------	--	--	--	--	--	--	--	--

D4093	D	0.00							
-------	---	------	--	--	--	--	--	--	--

110		0.00							
-----	--	------	--	--	--	--	--	--	--

110

Waterjet

Memo

0.00

FLOW CNC Waterjet

6061, 750 x 6.00

CUT AS DWG

DWG REV: 8

PROG REV: 8

****DEBURR****

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

(7) 6

BL212-6

PTO →

(7) 6

BL212-1

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: JK Date: 13/11/17QA Closed: JK Date: 11

Work Order: <u>93754</u>	DISPOSITION	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D4093-1</u>	Rework <input type="checkbox"/> Scrap <input checked="" type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input checked="" type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>
NCR No. <u>13-2181</u>					

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling	<u>12-12-18</u>	<u>100</u>	<u>1x</u>	<u>Holes not round.</u> <u>remove holes from</u> <u>program.</u>	<u>DAS</u> <u>16</u> <u>9-18</u> <u>QS7042</u> <u>12/12/28</u>	<u>Scrap + destroy</u> <u>Cut Holes w/ drill</u>	<u>JM</u> <u>12-12-18</u>	<u>DAS</u> <u>08</u> <u>9-18</u>	<u>DAS</u> <u>16</u> <u>9-18</u>
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

FAULT CATEGORY

Landing Gear	General		
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input checked="" type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld
<input type="checkbox"/> Crushed/Crimped,	<input type="checkbox"/> Burrs	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Part Moved	
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Positioned Wrong	
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Power Loss/Surge	
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Other	
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing		
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish		
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio		

Work Order ID 93754

November-27-12 11:05:15 AM

93754

Page 2

Item ID: D4093-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Bracket

Stop

NS2

Start Date: 11/22/12 Start Qty: 6.00

6

Cust Item ID:

Required Date: 12/07/12 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

130

Mill Conv

Conventional Milling Machine

Memo

0.00

12-12-20

6

132

132

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

12-12-27

6

135

135

QC

Quality Control

QC8- Inspect parts - second check

0.00

12-12-28

6

DAS
08
889

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date: ,

QA Closed: _____ Date: _____

<p>Work Order: _____</p> <p>Part No. _____</p> <p>NCR No. _____</p>				DISPOSITION		AGAINST DEPARTMENT/PROCESS								
				<input type="checkbox"/> Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update	<input type="checkbox"/> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab	<input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite	<input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier	<input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other						
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector		
Doc/Data														
Equip/Tooling														
Operator														
Material														
Setup														
Other														
Process														
Supplier														
Training														
Unapproved														
FAULT CATEGORY														
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube					General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio		<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions		<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled			
													<input type="checkbox"/> Other	

Work Order ID 93754

November-27-12 11:05:15 AM

93754

Page 3

Item ID: D4093-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Bracket

Stop

NS2

Start Date: 11/22/12 Start Qty: 6.00

6

Cust Item ID:

Required Date: 12/07/12 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

140

HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

6 76 13-1-3

160

160

QC

Quality Control

QC7-inspect Chemical Conversion Coat

0.00

AS
15
8-89
13.1.3

6

170

170

Packaging

Packaging

Identify as per dwg & Stock Location: 81-201 0.00

Memo

0.00

6x

8

8

13-01-03

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date: ,

QA Closed: _____ Date: _____

Work Order ID 93754

November-27-12 11:05:15 AM

93754

Page 4

Item ID: D4093-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Bracket

Stop

NS2

Start Date: 11/22/12 Start Qty: 6.00

6

Cust Item ID:

Required Date: 12/07/12 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

QC21- Final Inspection - Work Order Release

0.00

13/1/10 40

180

QC

Quality Control

Memo

0.00

pl (3-01-4)

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>					
	Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear				General						
Bending	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>						
Centre Not Concentric to O/S	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>						
Cracks	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>						
Crushed/Crimped.	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>						
Cuffs	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>							
Heat Treat	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>							
Inspection Strip in Tube	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>							
Ripples in Bend	Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>								
Torque Waves in Extrusion	Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>								
Turning Sequence	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>								
Wave/Twist in Tube	Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>								

Picklist Print

November-27-12 11:05:14 AM

Page 1

Work Order ID: 93754

Parent Item: D4093-1

Parent Item Name: Bracket

Start Date: 11/22/12

Required Date: 12/07/12

Start Qty: 6.00

Required Qty: 6.00

Comments: Ipp Rev:A New Issue 10-05-31 JLM Verified By:DD
11.09.28 JLM VERIFIED BY:DD IPP REV:C 12.10.31 AS PER DWG REV.C DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B0.750X06.000 6061T6 BAR :750-X 6.00		Purchased	No			f		21.8000		3.6631578		45 (B12-12-10)	

Location	Loc Qty	Loc Code
MAT004	21.8	
121380	21.8	

21.380 7

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

DART AEROSPACE LTD	Work Order:	93754
Description: Bracket	Part Number:	D4093-1
Inspection Dwg: D4093	Rev: <i>xD</i> <i>12-11-28</i>	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Measured by: <u>B</u>	Audited by: <u>R</u>	Preliminary Approval:
Date: 12-12-16	Date: 12-12-20	Date:

Rev	Date	Change	Revised by	Approved
A	11.10.13	New Issue	KJ	

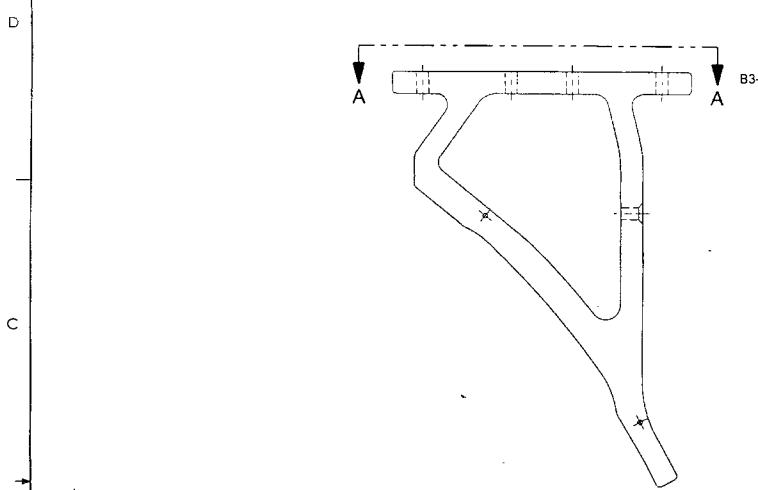
DART AEROSPACE LTD	Work Order:	93754
Description: Bracket	Part Number:	4093-1
Inspection Dwg: 4093 Rev: D		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

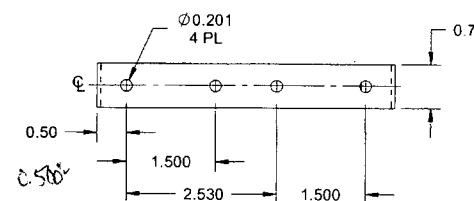
Measured by:	<i>SD</i>	Audited by:	<i>B.A</i> <i>08</i> <i>9-83</i>	Preliminary Approval:	
Date:	12-12-27	Date:	12/12/28	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

8 7 6 5 4 3 2 1



SECTION VIEW A-A
B3-1
NO. 93754 MLJ
12-11-27



SECTION VIEW A-A D6-1

RELEASED
2012-10-31

NOTES:

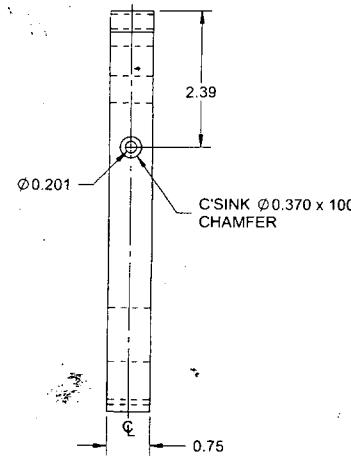
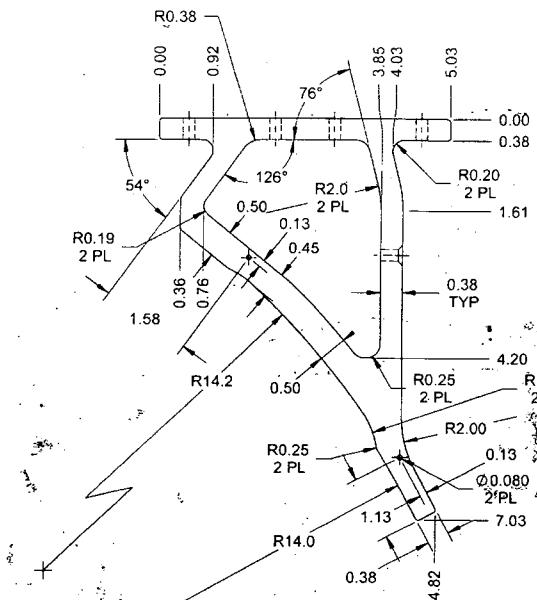
- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
- OR 6061-T6/T62 ALUMINUM SHEET
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209
REF DART SPEC. M6061T6B/M6061T6S
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.55 lbs

D4093-1 BRACKET

D	ADD Ø 0.080 HOLES (ZN B5-2, B5-4)	RF	12.09.18
C	REDRAWN D4093-1/3 (ZN B4-1, B4-2); ADD MATERIAL NOTES (ZN A8-1, A8-3, A8-5)	RF	11.07.27
B	REDRAWN D4093-1/3 (ZN B4-1, B4-2)	RF	11.01.31
A	NEW ISSUE	RF	10.09.16
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	RF	DRAWING NO.	REV. D
MFG. APPR.	RF	D4093	SHEET 1 OF 5
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	BRACKET	NTS
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8 7 6 5 4 3 2 1

93754

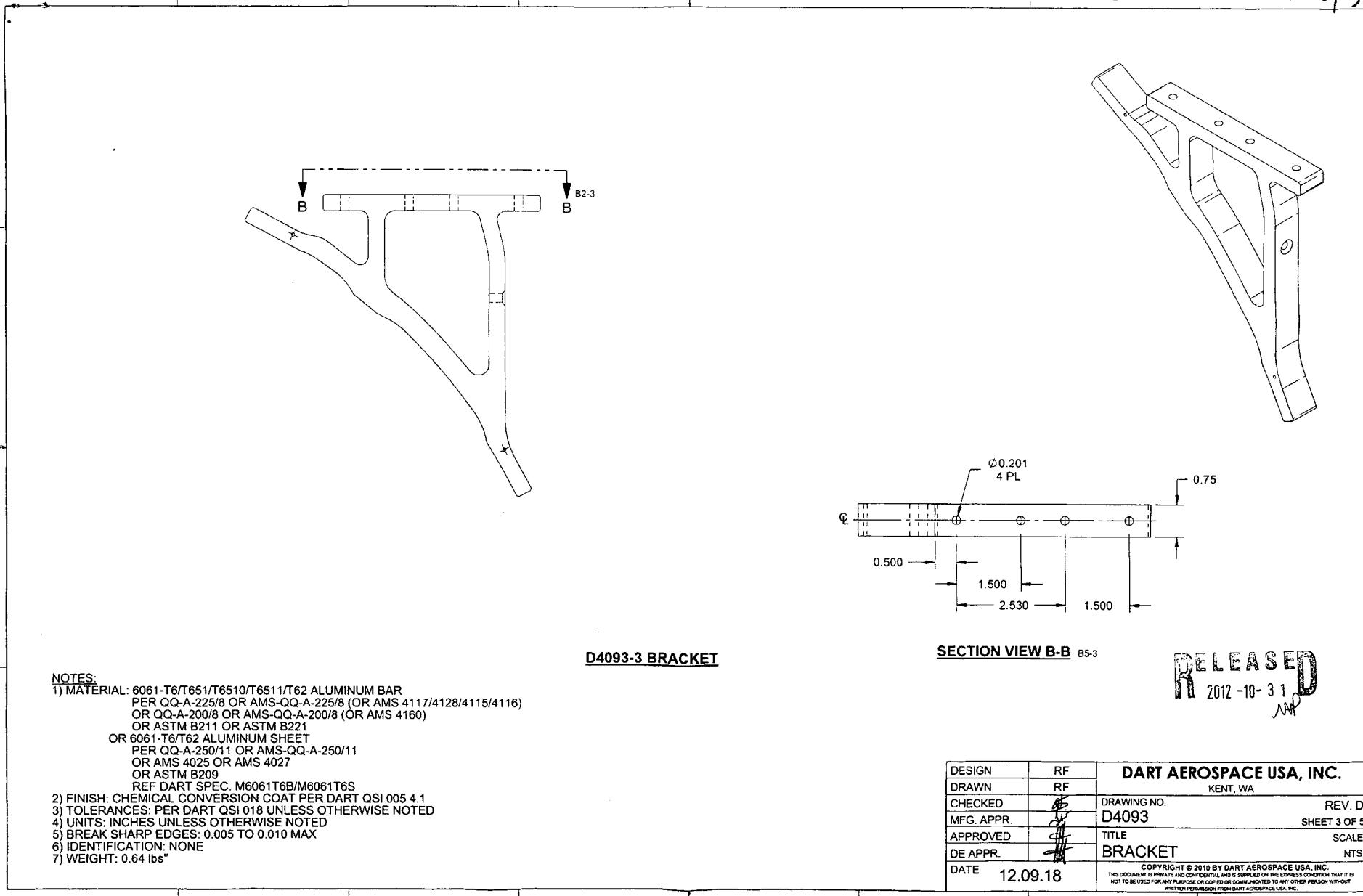


D4093-1 BRACKET

RELEASED
2012-10-31

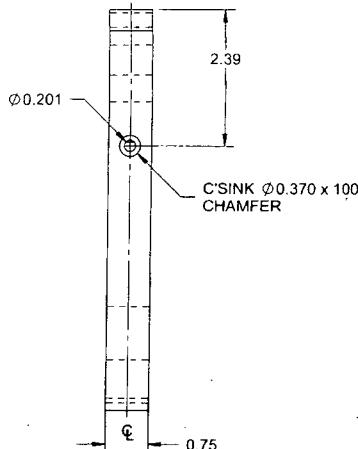
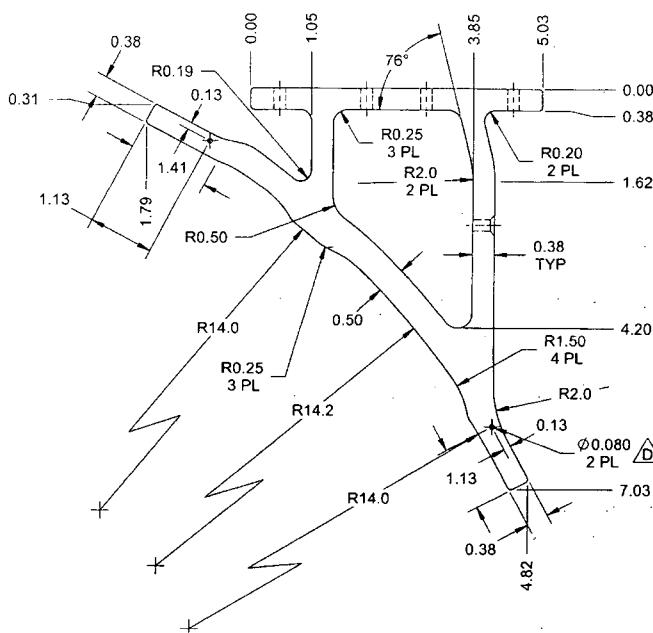
DESIGN	RF	DART AEROSPACE USA, INC.		
DRAWN	RF	KENT, WA		
CHECKED	<i>AS</i>	DRAWING NO.	REV. D	
MFG. APPR.	<i>AS</i>	D4093	SHEET 2 OF 5	
APPROVED	<i>AS</i>	TITLE	SCALE	
DE APPR.	<i>AS</i>	BRACKET	NTS	
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DART AEROSPACE USA, INC.	
KENT, WA	
DESIGN	RF
DRAWN	RF
CHECKED	AB
MFG. APPR.	AB
APPROVED	AB
DE APPR.	AB
DATE	12.09.18
DRAWING NO. D4093	
REV. D	
SHEET 3 OF 5	
TITLE BRACKET	
SCALE NTS	
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93754



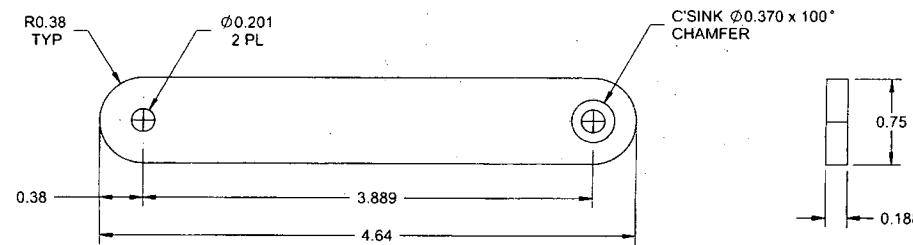
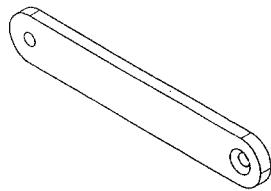
D4093-3 BRACKET

RELEASED
2012-10-31
M

DESIGN	RF	DART AEROSPACE USA, INC.
DRAWN	RF	KENT, WA
CHECKED	AB	DRAWING NO.
MFG. APPR.	AP	REV. D
APPROVED	SH	D4093
DE APPR.	SH	SHEET 4 OF 5
DATE	12.09.18	TITLE
		SCALE
		NTS

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93754



D4093-5 BRACKET

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
OR 6061-T6/T62 ALUMINUM SHEET
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209
REF DART SPEC. M6061T6B/M6061T6S
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.06 lbs

RELEASED
2012-10-31
JW

DART AEROSPACE USA, INC.	
KENT, WA	
DESIGN	RF
DRAWN	RF
CHECKED	<i>E</i>
MFG. APPR.	<i>W</i>
APPROVED	<i>W</i>
DE APPR.	<i>W</i>
DATE	12.09.18

DRAWING NO. D4093 REV. D
SHEET 5 OF 5
TITLE BRACKET
SCALE NTS

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8

7

6

5

4

3

2

1